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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): A computer implemented method for scheduling processor jobs on a network of parallel machine processors or distributed system processors, comprising the steps of:

accumulating in buffers control information communications generated by each process performed by each processor during a defined time interval, where adjacent time intervals are separated by <u>an</u> intervening strobe <u>intervals</u> interval for a global exchange of <u>the</u> control information <u>communications</u>; and

performing the global exchange of the control information communications at the end of each the defined time interval during the intervening strobe interval so that each processor is informed by all of the other processors of a number of incoming jobs-control information communications to be received by each processor in a subsequent time interval.

Claim 2 (previously presented): The computer implemented method according to Claim 1, further including the steps of:

running on each processor an ongoing process in the presence of a nonblocking communication call and storing control information relative to the nonblocking communication in a first descriptor;

yielding the processor to an operating system in the presence of a blocking communication call and storing control information relative to the blocking communication in a second descriptor while suspending the ongoing process and activating a ready process from a ready queue, if any; and

putting the ongoing process on the ready queue when the blocking communication call is completed.

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Claim 3 (currently amended): The computer implemented method according to Claim 1, further including the steps of:

issuing a download command to each processor at the beginning of the intervening strobe interval;

downloading from each processor, at a command of each processor kernel at the beginning of the <u>intervening</u> strobe interval, accumulated control information communications into the network for a total exchange between all processors so that each processor is informed of the number and identity of incoming <u>control information</u> communications to be received in the <u>succeeding subsequent</u> time interval; and

scheduling by each processor kernel of communications accumulated prior to the <u>intervening</u> strobe interval to be delivered in the <u>succeeding</u> <u>subsequent</u> time interval.

Claim 4 (previously presented): The computer implemented method according to Claim 2, wherein each descriptor includes an identification of a type of communication, sending and receiving processors, and virtual addresses of the buffers.

Claim 5 (previously presented): The computer implemented method according to Claim 3, wherein each descriptor includes an identification of a type of communication, sending and receiving processors, and virtual addresses of the buffers.

Claims 6-7: Canceled.